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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,140

03/29/2004

Maurizio Passarotto

CAM3-PT103

2155

3624

7590

07/21/2006

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EXAMINER

BELLINGER, JASON R

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/812,140	Applicant(s) PASSAROTTO, MAURIZIO	
	Examiner Jason R. Bellinger	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 and 53 is/are pending in the application.
- 4a) Of the above claim(s) 7, 11-15, 26, 27, 32, 33, 35, 37, 38 and 44-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10, 16-25, 28-31, 36, 39-43, 49, 50 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, all spokes of any sets of spokes being on the same side of the median plane, as set forth in claim 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1 and 53 are objected to because of the following informalities: The term --a-- should be reinserted prior to the terms "first" and "second" in line 3 of claim 1 for grammatical clarity.

The term "portion" should be replaced with the term --portions-- in the last line of claim 53 for grammatical clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-6, 8-10, 16-25, 28-31, 36, 40, and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite due to the fact that it is unclear what is actually being claimed in lines 8-10 by the phrase "all spokes of any...the median plane". The limitations set forth in this phrase contradict one another. Namely, the first limitation sets forth that "all spoke of any of the sets of spokes are on a same side of the median plane". This statement implies that all the spokes of the wheel are located on a single side of the wheel hub. The second limitation sets forth that "the first set and the second set are on opposite sides of the median plane", which contradicts with the first limitation.

Therefore, it is unclear how the wheel can have all the spokes of the spoke sets on the same side of the median plane while also having the first and second spoke sets on opposite sides of the median plane.

Claim 40 is indefinite due to the fact that it is unclear what is actually being claimed. It is unclear where or how on the rim and/or hub the spokes of the first set do not interpose the spokes of the second set.

Claim 42 is indefinite due to the fact that it is unclear what is actually being claimed. It is unclear how each set of spokes can include a spoke that is set at "a center point" (viewed in the direction of the axis) between the spoke sets in a radial plane of symmetry. It is unclear how a spoke can be part of a set while also being located "between" its set and another spoke set.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 39-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolff. Wolff shows a bicycle wheel including a hub **B** having an axis and a median plane, which is generally perpendicular to the axis. A rim **A** is connected to the hub **B** by a plurality of spokes **C**, which are arranged in spoke sets. A first set of spokes **C** connects a first portion 15 of the hub **B** to the rim **A** on a first side of the median plane, while a

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second set of spokes **C** connects a second portion 15 of the hub **B** to the rim **A** on a second side of the median plane. The spokes **C** on each side of the median plane produce generally equal forces in opposite directions along the axis to maintain the rim **A** centrally about the median plane (see lines 22-25).

As best understood, the first and second sets of spokes **C** are arranged so that no spoke of the other set is interposed, in this case meaning that the mounting points of the spokes from each set do not intersect each other, nor do any spokes from different sets share the same mounting points.

The spokes **C** of each set, when viewed in the direction of the axis, have a specular (i.e. mirror image) arrangement with respect to a radial plane of symmetry.

As best understood, each set of spokes **C** includes a spoke that is set at a center point between the two spoke sets in the radial plane of symmetry, when viewed in the direction of the axis.

The spokes **C** of the second side of the median plane extend radially from the hub **B** to the rim **A**, when viewed in the direction of the axis.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolff in view of Krampera ('853). Wolff does not show the wheel being a rear wheel with one portion having twice as many spokes as the other hub portion.

In Figure 3, Krampera teaches the use of a rear bicycle wheel. In Figure 4, Krampera teaches the use of a wheel having twice as many spokes on one side of the hub than on the other side of the hub (namely on the side of the hub where the sprocket cassette is mounted).

Therefore from these teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the wheel of Wolff as a rear bicycle wheel, for the purpose of providing a propulsion means for the bicycle. It further would have been obvious to one of ordinary skill in the art at the time of the invention to provide twice as many spokes on the sprocket cassette side of the rear wheel for the purpose of balancing the forces created by the increased weight of one side of the hub due to the sprocket cassette in order to prevent the wheel from failing during use.

9. Claim 53 is rejected under 35 U.S.C. 103(a) as being obvious over Wolff in view of Krampera ('853) as applied to claims 49-50 above, and in further view of Passarotto ('734).

The applied Passarotto reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed

but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Wolff as modified by Krampera does not show that the spokes of the first set (connecting the first hub portion to the rim) and the spokes of the second set (connecting the second hub portion to the rim) are alternately arranged on the first and second hub portions as spoke pairs and single spokes.

Passarotto teaches the use of a bicycle wheel having spokes (20, 22) arranged on left and right hub flanges that alternate between spoke pairs 22 and a single spoke 20 (see the last 6 lines of the Abstract). Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to alternate the spokes of Wolff as modified by Krampera in the manner taught by Passarotto, for the purpose of distributing the tension forces evenly around the circumference of the hub in addition to opposing sides of the hub.

Allowable Subject Matter

10. Claims 1-6, 8-10, 16-25, 28-31, and 36 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Response to Arguments

11. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Green reference shows a bicycle wheel having opposing spoke sets that balance the forces induced in the wheel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 571-272-6680. The examiner can normally be reached on Mon - Thurs (9:00-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason R Bellinger
Primary Examiner
Art Unit 3617



7/18/06